200,000 K/day

What do people want?

~~Complexure~~

~~What it~~

- Only what they want   : personalized selections
- When they want it   : ~~Anytime~~ + via agents
- delivered without hastle   : anywhere + in users context
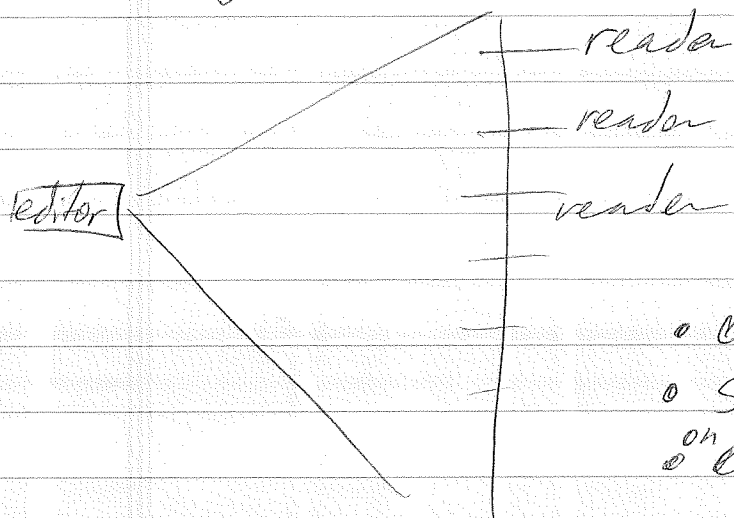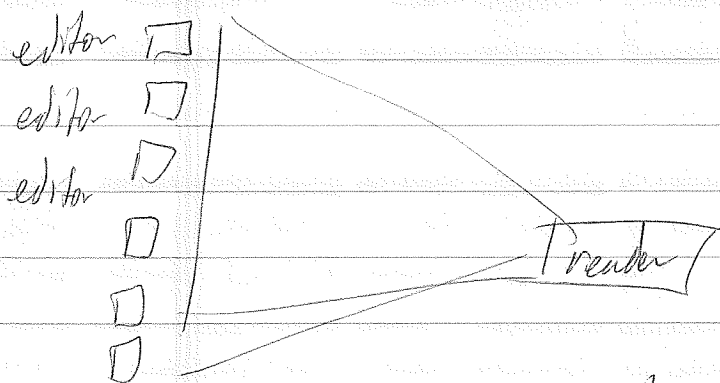
~~today: overload~~
~~complexity~~
~~confusion~~
~~intrusion~~

today   complexity
         confusion

Publishing of Old : Push

```
                    ┌─── reader
                    ├─── reader
        editor ─────┤─── reader
                    ├───
                    ├───
                    └───
```

- One to Many
- Same for all
- editor's schedule ~~xxxx~~

Publishing of New : Pull

```
editor ☐ ┐
editor ☐ │
editor ☐ │─────── reader
         ☐ │
         ☐ ┘
         ☐
```

- ~~xxx~~ what she wants
- when she wants it
- easy to find

integrated
personal
easy

- Dow Jones Revenues
- CD ROM offers: all, there ~~Networks~~ over
- Nicholas Negroponte:
  print won't go away, we just
  won't have the time for it we
  use to.

What is the Promise of

~~Why~~ the Internet?

{ democracy
openness
sharing
community
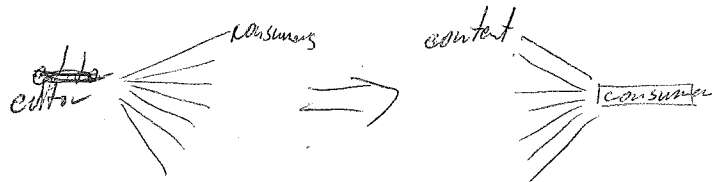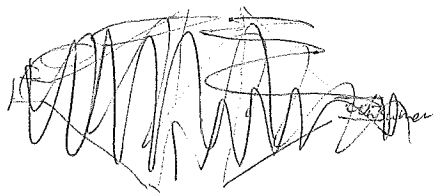international

Flipping the equation

~~life does not happen to you~~

~~you get what you~~

~~you act the~~

~~you get what~~

~~life does not happen to~~

puts the individual in control

~~rather than~~

rather than ~~produc~~ broadcast media-

centralized systems, proprietary

The Problem:
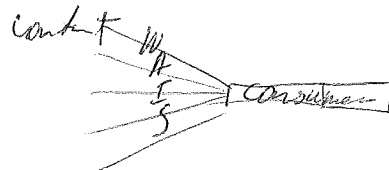'What I really want

Publishing ~~the~~ industry has slipped

608-8040

newspaper sales down
advertisers will move to where people are
consumers will take control of what they see
publishers ~~have~~ wake up to the urgency


Where we are now on the Internet

• separate systems.
• each with small readership
      CNN 75k
      wired Nk

WHAT WAIS does
   Integrate, alert

content
   W
   A
   I
   S   Consumer

Network Publishing

- Problem of Information

- Publishing Industry has flipped

- ~~Internet~~ Internet: ~~An Archipelago~~ of Islands in the Net
  ~~Breaking up~~ ~~because it~~
  - Hold the promise of what you want / when you want it
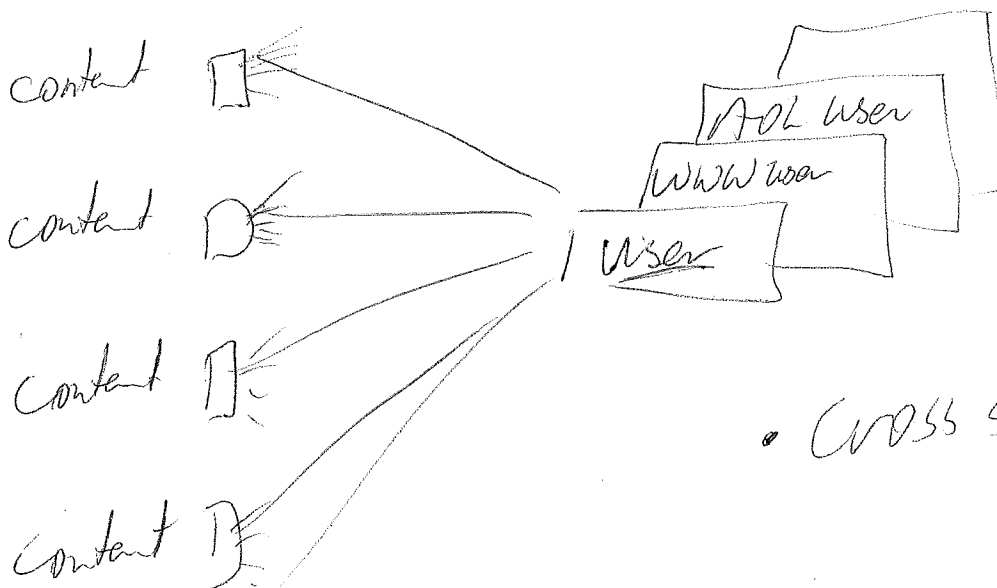 - Breaking up in intrigue on line systems but
  - Not there yet
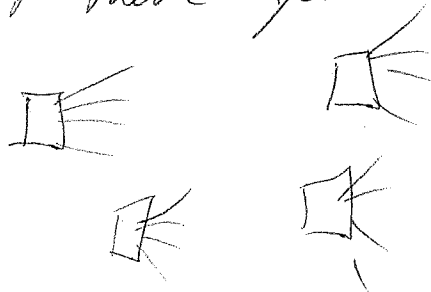
surfer's paradise
browsing + entertainment
→ Games

"Browsing"

Publishing Infrastructure

- WAIS: integrates the network for the reader
  of servers

content

content

content

content

AOL user
WWW user
User

- cross searching

Stationery Order Form

Information on specifications can be found in catalog sections. *Please Use A Separate Order Form for Each Item.*

Date_____

Item

	Catalog Page No.	Size	Quantity	Ink

Letterheads _____ _____ _____   Color _____

   Blank Second Sheets _____ _____ _____   ☐ Thermography (raised)

Announcements _____ _____ _____   ☐ Flat

Envelopes ☐ Blank ☐ Printed _____   ☐ Print 1Side ☐ Print 2Sides

Paper
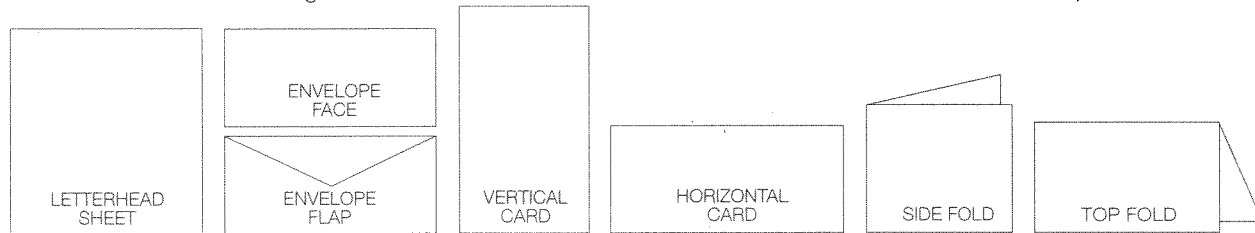
Paper Stock _____   Paper Color_____   ☐ Plain ☐ Panel

Type

Mainline Type Style Number _____   Size_____

Layout

Indicate Positions on Diagrams

LETTERHEAD SHEET   ENVELOPE FACE / ENVELOPE FLAP   VERTICAL CARD   HORIZONTAL CARD   SIDE FOLD   TOP FOLD

Layout No. (From Catalog) _____   Logo No. (Catalog) _____   ☐ Camera Ready Art or Logo Attached

Copy

Please Print Clearly, Underliine Capital Letters, & Double Check Your Spelling, Numbers and Punctuation

Sheet Copy _____

_____

_____

_____

Envelope Copy_____

_____

_____

Special Instructions *(use separate sheet if necessary)* _____

_____

_____Customer Approval_____

Retailer's Name _____

_____

Street Address _____

City _____State_____ Zip _____

Phone (_____) _____

The above is arbitrary and not in priority. there are obviously items to add, delete, or modify. I don't have the instinct to shape the above around the wais point of view.

WAIS provides the solution toady - how does wais respond to the above and where it doesn't what is it planning for the future? ? ?

(should show screens - highlighting WAIS is in background of all; don't know if anyone knows that WAIS is in everything. Also, emphasize more than search. What is major claim that WAIS can make that others can't and how will that continue to grow and be important)

I generally use current media as material so much of what is hear is past stuff. In today's USA Today there is an article re: PC sales. Even though it focuses on home computer it shows 13 million computers shipped in first 9 months of 1994 and hopes that 4th quarter will set record. Compaq has $2.3 billion in inventory stacked up to sell. Regardless if these land in the home or the office they will largely carry the seeds to on-line services bundled, and the beginning of internet connections either through on-line connections or free-standing internet. I would say that that means there are more new opportunities in this quarter's sales than there are current on-line users - exclusive of internet users (which i don't know the number but i don't believe it is as high as currently stated) Having said that I believe that 1995 will be the defining period fueled to a large degree by the entrance of Microsoft. This is creating a frenzy fueling content people's desire to get on-line asap. This may run contrary to wais experience with DJ or others, buy they are "in the business" and have a vested interest to protect. (I happen to believe that is the wrong position to take but it is understandable - they will stand on the base that quality of information is important, that people have paid high prices for the content, and their reputation will control the area of the market where they are recognized) Rather than build a business entirely on serving this area it is probably better to provide opportunities for new content suppliers. Remember CNN has more news bureaus overseas that TV networks, Bloomberg has more news bureaus that DJ and neither existed importantly 10 years years ago. the other loose cannon in publishing is the entire world of advertising, direct mail, transaction revenues from new services such as ticket selling, banking, etc. will provide money to subsidize the cost of content. American Express, a large advertiser, is demanding free content from Conde Nast's Travel magazine to provide editorial content to an online service AmEx is planning. For this they will continue to advertise in the magazine. (this is not verifiable; but only an indication of what pressures are being used to get content into the marketplace. If Fidelity, DJ larger advertiser, went to DJ and made the same demand what would DJ do? Even if they say no, it ratchets up the pressure on publishers trying to defend themselves.

Now what does this mean to wais and why is wais important in taking advantage of

this picture?

I have more stuff at santa fe which i will ruminate through and will suppliment this by Friday.   I will also read this and let you know if I put stuff down that I would change.

Hope this helps.

Bill

Dear Brewster:

I will work on this some more. Some of the numbers are in Santa Fe and I am also rusty, and not in your context.   This is not exactly what we discussed in the car because I can't directly remember. The process is largely inductive and has always grabbed at current events to build a picture from which to respond. It is a technique which Megatrends used in trying to define what is happening by checking all media, and then trying to propose future directions. This is somewhat opposed to the building block approach using deduction to point the way. I guess induction is more a pull; deduction a push. your explanation of KPMG is probably more of an inductive way; by having to define a current situation and what you propose to solve your defined problem you have made a top down view.

Bob indicated maybe a top down approach may improve the sell and we talked about Lori having a marketing view to give which explained the market place today and how WAIS is going to change it in the future. We would try to go as long as we can before we get too specific about how WAIS technology comes into play. This may be a keynote kind of approach for the Internet group.

While we are all talking about the opportunities of the future, today is occurring. While we are all awaiting the next breakthrough application, today is occurring. While we are all "strategizing" new relationships to carry us to the end of the century, today is occurring. Today is a nuisance; today is a pain. Tomorrow is the promise; the solution. This is the view of the person providing the service and for a long time it prevailed. Now the power has shifted to the consumer of the service and what a difference it has made. The consumer is saying today is the problem; hang the future. Or at least lets get improvement faster. **The problem of today is complexity, confusion and intrusion. Complexity created by technicians who have little concern for ease of use; confusion created by differing views which are part of the problem. Software** programs are given away free instead of being sold at a premium. Hardware prices are dropping to the point consumers are purchasing powerful computers for the home. CD-Rom drives are in 70% of the new computers and the fledging CD content producers are driven to take a $1 per copy to bundle their product. Consumers are being shown catalogs, games, and other items in moving color with the opportunity to buy items. Advertisers and their agencies are beginning to experiment with ads on on-line services. Publishers, some traditional, and some new, are creating new information products at a rapid pace. Customers have driven the number of e-mail messages off the charts. Business people are using their local and wide area networks to a degree unknown a few years ago; and the use is not only for data-some are receiving voice and television pictures on their computers. And on top of all this activity the Internet emerges as the "hot" area to be in. The net result of all this activity is an enormous increase in the volume of content and a degree of choice on the plate of a consumer who can't spend anymore time and wants life simpler. Little by little the consumer is winning. And it is not necessarily the current consumers who are leading the battle. The new consumers have more to say than they know.   They didn't buy a computer until it was loaded and ready to go; they didn't

use it until it functioned by pushing a button; they didn't subscribe to on line services until they could afford them; they didn't buy CD's for $100 per disk. They have done as much to change the shape of the future by their actions of today than anyone. And what is more important they have hardly begun to buy. As the new users begin to explore the volume of information becoming available they will act the same in their demands. They will want to find information in a variety of ways without expending a large amount of time and money. They will probably want to be served what they want, when they want it, without a lot of effort. When they experience not being able to find what they are looking for they will not waste time; they will change services. the same success experienced by the ease of use computer will translate rapidly to ease of find. Those who cant' organize the information to meet the ease of find will not last. And the greatest challenge is that the customer sets the context, not the supplier. Easy to find will be a major test; far more complicated that ease of use, but the customer will be relentless in determining the winners since they are spending precious time. Those suppliers who feel that Boolean will sweep the consumer are the same that champion a more efficient keyboard layout. Those who feel that hyperlinks will do it all will be as successful as promoters of Esperante. Those who feel that merely finding content when asked and stopping there will lose out to those who continue with active agents sorting through metadata.

The experience we have gained shows customers want:

content from a variety of sources - in fact, they want answers to their questions just like buyers of electric drill want holes, not drills.)

natural language questions are the way people think - naturally.

giving a priority value to content is better than merely listing. this is an absolute when information quantity reaches any significant size.

providing an opportunity to get "more like" information is valuable, since people's first question seldom answered in completeness. the first question establishes an area of context, around which significant content will cluster. it is important to use the first question results to expand to those adjacent areas.
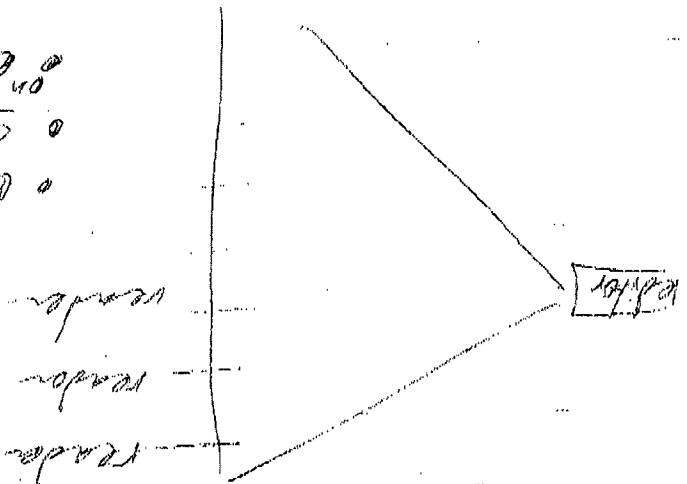
allowing them to view the information in any way they are comfortable is important

finding in the most efficient manner - indexed, searched, or whatever way reaches the needed answer in fastest, cheapest manner.

fixed prices; not metered usage. while business users are conditioned to paying for information, vast majority of people expect to not pay much. extending the business user habits to more general market is dangerous.
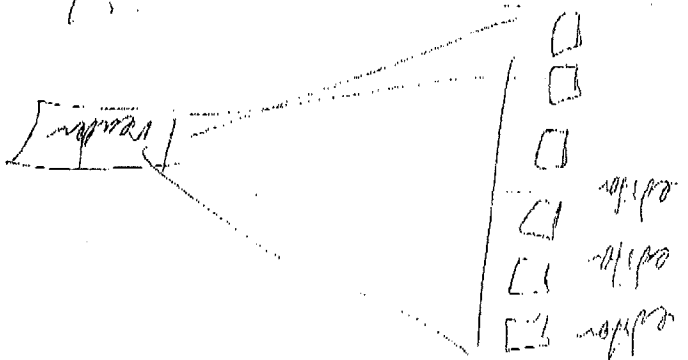
new information sources which emerge (and they will at an increasing rate) should fold into the total information resource without the customer having to do much.

What is the Promise of ~~the~~ the Internet?   { democracy
  openness
  sharing
  community
  international

Flipping the equation

~~life does not happen to you~~
~~you get what you~~
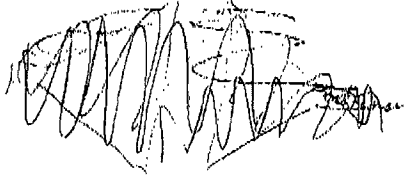~~You act the~~
~~You get that~~

~~life does not happen to~~
puts the individual in control
~~rather than~~
rather than ~~media~~ broadcast media-
centralized systems, proprietary

~~Internet~~ Network Publishing
Information Sharing

8650625

The Problem:
'What I really want

Publishing ~~too~~ industry has flipped

608-8040

consuming content

editor → → consumer

Newspaper sales down
advertisers will move to where people are
consumers will take control of what they see
publishers ~~have~~ woke up to the ungoing

Where we are now on the Internet

· Separate systems.
· each with small readership
  CNN 75k
  wired N.

WHAT WAIT'S does
Integrate about
System

content → Consumer

Network Publishing

- Problem of Information

- Publishing Industry has flipped

- ~~Mass the~~ Internet *now*: ~~An Archipelago~~ of Islands in the Ne
  ~~darkly because it~~
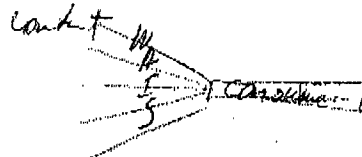 : Holds the promise of what you want/when you want it
  : ~~Breaking up~~ mainframe online systems that
  : Not there yet

surfer's paradise
(browsing, entertainment
→ Games

"Browsing"

Publishing Infrastructure

- WAIS integrates the network for the reader
  of servers

content ☐ ⟍
content ☐ ⟍
content ☐ → | user | [AOL user]
content ☐ ⟋   [WWW user]

• Cross searching

Date: Fri, 2 Dec 1994 10:33:55 -0500
From: Bdunn1@aol.com
To: Brewster@wais.com
Subject: Internet Speech stuff

December 2, 1994

To: Brewster Kahle

From: Bill Dunn

Brewster: A somewhat dated presentation. I put it together based on Gordon
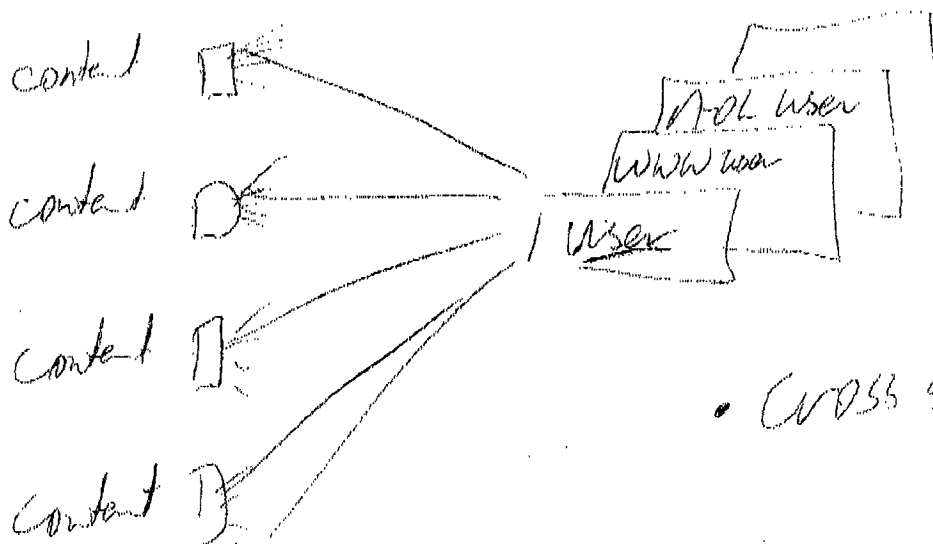Moore's comments and tried to give it a content/service centric view based on
holes, not drills; In reviewing it I could still say many of the same
things. Hope this helps you give some top view.

    From 1980 to 1990 the financial picture of Dow Jones has changed
considerably by the utilization of electronic forms of information.

    1980 - Circulation, Advertising, Other revenue -- $500 million.
    Electronic revenue -- -- - - -- -- - - - - -   30 million.

    1989   - Circulation, Advertising, Other revenue - - $990 million.
    Electronic revenue - -- - - -- -- - - -   695 million.
        (with Telerate)

    Electronic revenue - - - - -- -- - - - - $200 million.   (
without Telerate)

While there was a doubling of revenue for the "print" publications there was
a 22-fold increase in the electronic business considering the Telerate
purchase and almost 7-fold increase without it.

 Over 40% of Dow Jones revenue comes from electronic forms but more
importantly 60% of the operating income.

 This demonstrates that a company can adjust to the changing customer
requirements and technological evolution while meeting its financial
obligations. It answers a question "Can a once-a-newspaper-company prevail".
 An assurance is gained if the company can view itself as an information
company - not captured by a single form of connection to the customer,
reader, or viewer.

 Gordon Moore, of Intel, once termed us as an 8th level company, after
hearing our complaints that the technoids always viewed us as an application;
typically a future one. It appears that the number seven is used frequently
in computers where the foundation layer may be the operating system and the
top layer the application; in networks such as the ISO model with the
application layer being the seventh. Gordon said "we are the stuff of the
mind" and are above the technology level. He wasn't referring to a
superiority; just that we rest on the topology others must build and use. He
felt the discussions about standards, i.e., DOS and Unix compatibility;
presentation language compatibility etc. were necessary evils which delayed
the topology formation. DJ, as a provider of content, could not control the
developments, and probably could only influence direction to a small degree.
 We had to be satisfied in adapting and adopting those technologies our
customers selected.

 In data broadcasting and interactive services we have to be compatible with
many computers, applications, networks, and search preferences. From a
content providers view we also had to sit on top of various media of choice;

newspapers, magazines, radio, wire services, interactive data base services, over-the-phone audiotex, broadcast television, and interactive video. From a content providers viewpoint we had to serve a class of customers who depended on us to set an agenda of important business and financial news and issues. This is done with the Wall Street Journal, and other business publications (one reason why John Sculley reads the Journal). Wire services perform similar services alerting smaller class of customers, as do radio and television. In the future, fax newsletters will extend this service to even smaller groups economically.

Extremely important though has been the unleashing of great technology allowing us to economically and profitably serve the needs of individuals, by giving us the processing and distribution capability to create interactive data products. Extensions of this power to the customer allow those who want to create their own unique service to do so. Processing, such as the Connection Machine performs, allows them to ask the question the way they wish, view the results, establish the context for further queries, and find their answer. Further developments in other software technologies will allow them to use our computers to serve their needs enhancing the p.c. or workstation power. Examples - use our SQL to structure their searches and views; building their topic searches on our information streams selecting information gauged against their individual preferences.

The economic model of an information company is still forming and needs further understanding, even by those in the business. We are dealing with "stuff of the mind" - facts, views, opinions, measurements, etc. - stored in electronic form costing little to keep, nothing to clone, a smattering to distribute, very little to manufacture to meet the customer requirements - i.e. convert ASCII code to readable letters on a screen or printer; sort through a stream of words looking for those of individual interest; bring together text, sound, and vision in new ways of information presentation.

The value of the end result is in the mind of the customer and can be very high or very low. The time of the customer is extremely valuable and those who can make the greatest impression in that time will be leaders. We feel that the convergence of text, sound and vision at the workstation, p.c., t.v., or whatever will provide another level of importance to the process of informing. The technical topology is beginning to form for content suppliers to at least begin the process. We believe the rate of change will continue to be high and bring new opportunities faster than is commonly believed. The individuals' need to know is a very strong force in promoting this process.

Martin: Some things from the past showing the impact of information creation and some important findings from the customers.

>From the book Information Anxiety we are advised that:

"A weekday's edition of The New York Times   contains more information than the average   person was likely to come across in a lifetime   in seventeenth-century England."

Place this against some current reported volume.
   o   More information has been produced in   last 30 years than in previous 5,000.

   o 1,000 books published internationally   every day.

   o Number of newsletters:

```
    1984 -    0,300
    1986 - 14,300
    1988 - 16,500
    (This doesn't allow for the impact      of facsimile.)
  o The total of all printed knowledge      doubles every eight years.


  o   We will have 200 billion characters on          line by year end and
probably one              trillion characters by the end of the            decade
- 5,000 years of the              Wall Street Journal.
```

Peter Drucker:

. . . "knowledge-based society" information is the key resource and building
block for every type of organization. Knowledge workers will take their
place, the ranks of middle managers will thin, workers will be more mobile,
and executives must learn to manage large numbers of specialized workers much
as a conductor leads an orchestra."

We know:

    o Information is growing exponentially.
    o Business will be increasingly   competitive in the 90's.
    o Companies are restructuring in a   less hierarchical manner and
         changing the platform for   Information Management.

 We believe that the convergence of these three; information growth,
competitive business environment, and new structures will place emphasis on
and reward the most efficient information use - both of current and
historical nature and of internal and external source.

Customers and Value:

    o They will pay more to those who do not   waste their time with
excess.

    o Their willingness to pay increases when   analysis is provided,
interpretation is included,
    and information is organized to their suiting.

    o They will pay more when they are alerted   to significant events.

    o They hold in higher value those services   which tie into things
they use; their   corporate network, their workstation   or pc,
their corporate menu.

    o They want information packaged to meet   specific needs.

    o They value ease of use of which there is   currently little.

    o They want fixed pricing, unlimited usage   and sharing.

Customers and Content:

    o While early users focussed on financial   information the product
people whose   job is to market and sell in a   competitive
climate are realizing the   value of marketing, census,
         psychographic, public relations and   advertising
information.

o Customers want more global information   - corporate, financial,
political, and   statistical.

o Customers want legal developments and   trends by industry in a
non-legaleeze   fashion.

o Customers are looking forward to the full text   of corporate filings
when the SEC   system arrives in the 90's.

o Customers are now asking for almost   everything to be online -
certainly in   the 90's most information of mexit will
have an online component.

Technology:

. . the customer doesn't know the itch, they want the scratch.
]

. . we all underestimated the elegance of the customers   serving them
technology that only the most strong-willed   could use. ,

. . this will be the decade when the   customers finally get what
they want.

Customers wants:

o They are not pleased with the hard to use, non-integrated   and poorly
organized services.

o Graphic interfaces increasingly found on   newer computers make them
happier on one hand   but the glut of files leave them in a position of
not   remembering where they put things.

o Network services in real-time - not dial-   up - is closer to their
wants.

o Asking questions of elegant parallel   computers is easier and more
human-   like than conducting boolean searches   driven by
traditional processors.

o Having the assistance of agents to find   information is better than
spending   their own time and effort.

o Consuming information in text, sound, and   video gives a fuller
dimension to   understanding.

regards,

Bill

~~Compare WAIS to other search engines~~

- Clarify ~~that~~ WAISserver 2.0 is available and ~~does~~ has a new set of robust searching features.
✓ Establish commercial WAISserver ~~vs~~ vs free-ware by ~~Instead~~ emphasizing:
  - Query report
  - Large databases
  - Incremental Indexing
  - WAISdelete
  - WAISgate
✓ ~~Establish~~ Clearly state our alliances with

      Fulcrum
      ConQuest ⟩ Protocols unglued from WAIS and
      Fujitsu   glued to their product(s)

✓ WAISserver, and our partners who will become WAISized are different from WWW enabled search engines because ...

Brewsters talk on "surfing the net"

Emphasize

(A) WAIS is ~the~ key to unlock the content ~hidden~ behind a WWW server

~don't be caught in html prison~

- post data ~on the net with the~ ~It will not be distated~ without having to do html tags on every page

- Post-it-once = all document ~types~ available to client queries ~without~ having to ~change~ document types
   ✓ Acrobat stays in database as Acrobat,
   ✓ Word for windows stays in database as Word-for-windows, etc.
   ✓ ~Thus~ Thus duplication of databases is not required

- Wire once — with WAIS gate~way~ Gopher gateway, and the emerging gateways to proprietary online services, w/ WAISserver all ~of the~ clients will ~be~ have access.